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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,114	10/23/2003	Igor Y. Khandros	P12C2-US	6583
27520	7590	09/13/2005	EXAMINER	
FORMFACTOR, INC. LEGAL DEPARTMENT 2140 RESEARCH DRIVE LIVERMORE, CA 94550			ABRAMS, NEIL	
			ART UNIT	PAPER NUMBER
			2839	

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/692,114

Applicant(s)

KHANDROS

Examiner

Neil Abrams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 34-38, 41-48, 63, 66-70, 81-91 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 34-38, 41-48, 63, 66-70, 81-91 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

Upon further review, indicated allowability of certain claims is withdrawn.

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 34-91 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No.

6,741,085 parent case. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of this case are equivalent to those of the parent case and differ mainly by omission of "stiffener" limitation.

3. Terminal disclaimer should be filed in the response to expedite the case.

4. Claims 34-38, 41-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beaman 846 alone or taken in view of Kimura.

5. Beaman (see figs 3,6,7,16) discloses plural first substrate 40 (see column 8, lines 5-7) with contact structures <sup>42</sup>~~40~~ (or ends 110 read as contact structures), a second substrate 60 with terminals 106 and 162 with connection of terminals 106 to contacts 42 of the first substrate. The contacts 42 (or 110) are for connection to dice 48. The

substrates 40 are to be attached to substrate 60, figure 16. Beaman does not show interconnection through substrate 60 however these ~~would~~ have to be present for device to operate and further, such feature is shown by Kimura at 66, figure 9. Therefore obvious to use such feature in Beaman for part 60 to function as a pitch converter. Dependent claims do not appear to issue and further for claims 34, 35, spreading of terminals for wide pitch near tester taught by Kimura at 66. Also obvious to use whatever pitches are necessary for matching dice pitch to tester pitch. Claims 37, 38 parts 68, 72 form interface to tester and 68 forms a probe card. Claim 41 met by above combination. For claim 42, 44, 45 relationship of substrates to dice relates to intended use and cannot be relied upon to avoid the prior art. Note that use with dice is not in claim preamble. Even considering the recitation as a limitation it is seen that it would have been obvious to form the Beaman test head 40 to correspond to plural dice. Such change produces no new or unexpected result but merely involving enlarging each test head 40. Claims 46, 47, Beaman uses wires 42 are overcoat material is formed by plating, Au, etc and also by elastomer 40.

6. For claim 48, note only single first substrate 40 is required. Overcoat 44, which may be relatively rigid elastomer, appear to be of greater yield strength than that of wires. Should this be at issue also obvious to ~~use~~ <sup>form</sup> such ~~rigid~~ <sup>of necessary stiffness</sup> material at 44 to tailor resiliency as necessary.

7. Claims 63, 66-70, 81-86, 91 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Beaman 846.

8. Beaman ' see fig 2, includes first and second substrates 40, 60 with use of plural first substrates disclosed. Beaman substrate 40 figure 13 includes contacts 110, terminals 104, 150 and interconnection at 42. This first substrate corresponds to a dice and inherent that with plural substrates 40 each one would correspond to one of the dice. For all claims should issues, recited feature considered obvious variations. For claim 81, Beaman applied as above. In addition obvious to arrange probes 110 to correspond to input, output terminals as necessary for proper operation, second substrate 60 connectors shown at 64. As alternative 60,68 together are read as a second substrate and have connectors for cables 72 fig 2. Further obvious to form figure 2 with connectors like those of fig 1 at 28 for easy plug in use. For claim 70 see above discussion regarding claim 48.

9. Claims 81-89, 91, 63, 66-67 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sugai alone or in view of Beaman 846.

10. For claim 81, Sugai includes plural first substrate 29 with contacts probes 31 attached thereto, second substrate 35 with connectors 36, the first, second substrate attached, see figure 2 and the probes for testing the device 44, 47. Should connectors feature be at issue, also obvious to provide 35 with connectors like that of Beaman at 28 to enable use of remote tester.

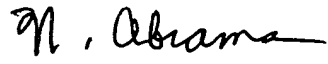
11. Claim 82 to 86, recited use with dice refers to manner of use rather than to structure of claimed device. Claims 87-89 met by Sugai springs 31. Claim 63, etc included since also met by or obvious in view of Sugai with parts 31 forming contacts,

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interconnections and terminals (near 36). Use with dice defines intended use. Should issue arise recited features deemed obvious variations.

12. Applicant's arguments filed with the amendment have been fully considered but they are not persuasive. For Remarks, page 14, Beaman use of plural test heads 40 is now applied. For claims 48, 70, no arguments are presented, and rejections of these claims appear not at issue, should they be cancelled?

Any inquiry concerning this communication should be directed to Neil Abrams at telephone number 571-272-2089

  
NEIL ABRAMS  
EXAMINER  
ART UNIT 322